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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the **PATENT APPLICATION** of:

Kijima et al.

Application No.: Not Yet Known

Our File: FUK-195942.2

Filed: Not Yet Known

Date: February 5, 2002

For: IMAGING APPARATUS

Group: Not Yet Known

Examiner: Not Yet Known

PRELIMINARY AMENDMENT

Box Patent Application
Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to examination, please amend the application as follows:

IN THE TITLE

Please delete the title as filed and insert the following new title:

--METHOD AND APPARATUS FOR ADJUSTING SWEEP-OUT FREQUENCY
FOR AN IMAGING APPARATUS RESPONSIVE TO AN OPERATING STATE
OF A STROBO MEANS--.

IN THE SPECIFICATION

On page 1, at line 1, please insert the following:

--CROSS REFERENCE TO RELATED APPLICATION

This application is a divisional of U.S. Patent Application No. 09/350,335, filed July 9, 1999.--

Page 1, line 2, delete "BACKGROUND" and insert instead --FIELD--.

Page 1, after line 5, and before line 6, insert --BACKGROUND OF THE INVENTION--.

Page 1, line 14, delete "or", and insert instead --for--.

Page 2, line 14, delete "compresses", and insert instead --compressed--.

Page 3, line 7, after "obtaining", insert --a--.

Page 3, line 19, change "charge discharge" to --discharge of charge--.

Page 5, line 18, delete "to" and insert instead --with--.

Page 5, line 27, delete "to" and insert instead --with--.

Page 6, line 5, delete "V5" and insert instead --V6--.

Page 8, line 3, delete "to" and insert instead --with--.

Page 9, line 13, delete "of" and after "frequency", insert --,--.

Page 9, line 21, after "is", insert --a--.

Page 9, line 21, change “normally open” to --normally-open--.

Page 10, line 6, after “Furthermore,”, insert --a--.

Page 10, line 15, after “trigger,”, insert --a--.

Page 11, line 10, after “judging”, insert --an--.

Page 12, line 12, after “than”, insert --when--.

Page 13, line 9, after “around”, insert --(i.e. is located near to)--.

Page 14, line 23, after “judging”, insert --a--.

Page 14, line 28, after the second occurrence of “of”, insert --the--.

Page 15, line 2, delete “Other”, and insert instead --The above as well as other--.

Page 15, line 18, delete “flow” and insert instead --timing--.

Page 16, line 25, delete the first occurrence of “the” and insert instead --this--.

Page 17, line 22, delete “having” and after “open”, insert --at both--.

Page 18, line 8, after “pair”, insert --of--.

Page 18, line 14, delete “prefix”, and insert instead --suffix--.

Page 18, line 15, delete “prefix”, and insert instead --suffix--.

Page 18, line 19, delete “to”, and insert instead --together--.

Page 19, line 4, delete “51y” and insert instead --51z--.

Page 19, line 9, delete “fix”, and insert instead --fixed--.

Page 19, line 12, delete “fix”, and insert instead --fixed--.

Page 20, line 4, delete “65” and insert instead --66--.

Page 20, line 22, delete “fix” and insert instead --fixed--.

Page 21, line 14, delete “The” and insert instead --These--.

Page 21, line 19, after “as”, insert --a--.

Page 22, line 9, delete “4” and insert instead --5--.

Page 22, line 26, after “apparatus,”, insert --to--.

Page 23, line 28, delete “to” and insert instead --with--.

Page 25, line 23, delete “to” and insert instead --by--.

Page 27, line 23, delete “210” and insert instead --20--.

Page 28, line 5, delete “21” and insert instead --f2--.

Page 29, line 7, after “to”, insert --whether--.

Page 29, line 11, delete “f12” and insert instead --f--.

Page 32, line 13, delete “VBC1” and insert instead --VBC2--.

Page 33, line 16, delete “209” and insert instead --20--.

Page 33, line 27, delete “considerations” and insert instead --consideration--.

Page 34, line 5, delete “in dependence” and insert instead --dependent--.

Page 34, line 23, delete “it”.

IN THE CLAIMS

Please delete claims 1-10 and 12-14 without prejudice.

Please add the following new claims 15-20:

--15. The imaging apparatus of claim 11 wherein said imaging element is powered by a power source, said control means including means conducting a voltage check operation for monitoring a power source voltage level to prevent charging of said strobo means when said voltage level is below a predetermined threshold voltage.

16. The imaging apparatus of claim 11 further comprising a shutter release button movable to a partially depressed position;

said control means initiating a voltage check operation when said shutter release button is moved to said partially depressed position.

17. The imaging apparatus of claim 11 further comprising a shutter release button movable to a partially depressed position and a fully depressed position;

said control means initiating a voltage check operation when said shutter release button is moved to said partially depressed position.

18. The imaging apparatus of claim 17 wherein said control means monitors said strobo means to determine if said strobo means is charging responsive to completion of a voltage check operation and movement of said shutter release button to said fully depressed position.

19. The imaging apparatus of claim 18 wherein said control means further includes means for returning to said voltage check operator when a previous voltage check operation is completed and the shutter release button has failed to move to said fully depressed position.

20. A method for operating an imaging apparatus having an imaging element for accumulating signal charge corresponding to incident scene light flux in a photo electric converting element section, said imaging apparatus being powered by a power source and including a strobo means, comprising;

- a) monitoring the power source;
- b) setting a frequency of a sweep out signal for sweeping out unnecessary charge from the imaging element whereby a higher frequency sweep out signal is set when an output voltage level of the power source is greater than a first

Applicant: Kijima et al.
Application No.: Not Yet Known

predetermined voltage and setting a lower frequency for the sweep out signal when the output voltage level is lower than said first predetermined voltage; and

c) monitoring said strobo means and setting the frequency of the sweep out signal at said lower frequency when said strobo means is being charged to thereby reduce energy output from the power source when the sweep out operation is being performed during the time that the strobe means is being charged.--

IN THE ABSTRACT

Please delete the current Abstract and insert the new Abstract attached on a separate sheet.

REMARKS


The present application contains claim 11 and new claims 15-20. Claims 1-10 and 12-14 have been cancelled.

Early examination and allowance of these claims are earnestly solicited.

Applicant: Kijima et al.
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Respectfully submitted,

Kijima et al.

By 
Louis Weinstein
Registration No. 20,477
(215) 568-6400

Volpe and Koenig, P.C.
Suite 400, One Penn Center
1617 John F. Kennedy Boulevard
Philadelphia, PA 19103

LW/sag
Enclosures

ABSTRACT

An operating condition judging circuit judges whether or not a strobo device is being charged. A controller controls the frequency of sweep out of unnecessary charge in the imaging element based on the output of the operation judging means to effectively reduce peak consumed current through the entire imaging apparatus, reducing power consumption and extending battery life.

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